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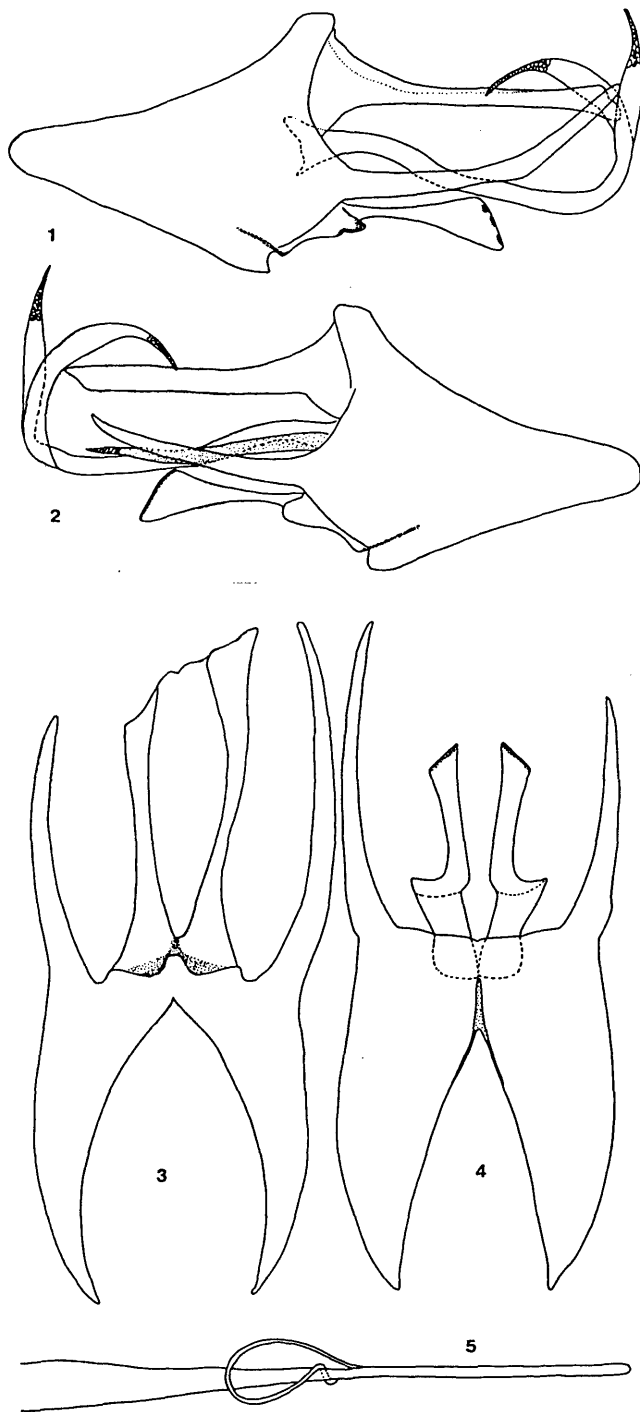
THREE NEW SPECIES OF TRICHOPTERA FROM SOUTHERN ANATOLIA

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Abstract. Three new species of Trichoptera are described and illustrated: *Hydroptila alara*, *Tinodes oyae* and *Athripsodes antalya*.

***Hydroptila alara* sp.n. (Hydroptilidae)**

Head, thorax and wings brown; antennae with 32 segments; length of the anterior wing of male 2 mm. - Male genitalia (Figs. 1-5): The apical edge of segment 8 bears on each side a row of extremely long setae, which reach to the subdistal part of segment 10. Segment 9 is deeply excised dorsally and ventrally; in lateral view, gradually narrowed on the anterior edges; posterior edges of segment 9 are elongated and form asymmetric prolongations on each side; the left prolongation is



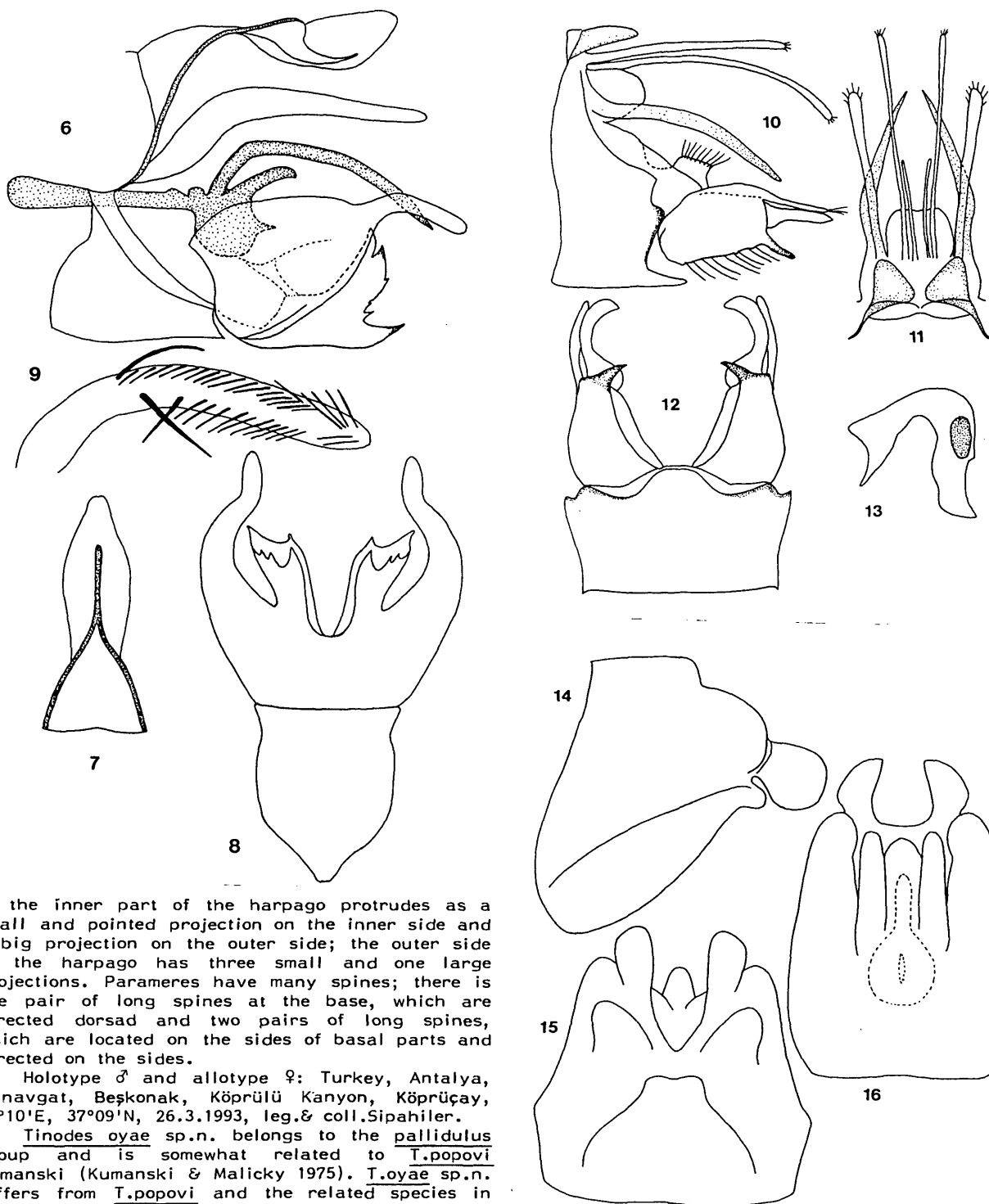
longer than the right one; in lateral aspect it is as long as the 10th segment, slightly curved in the middle and directed dorsally. The right prolongation is almost parallel to segment 10 and slightly shorter than it. In ventral and dorsal view it appears much shorter than the left one. Segment 10 is asymmetric on the apical edge; the median part is slightly sclerotized and bilobed in the middle; the sides of segment 10 are strongly sclerotized and the left side is longer than the right one; the apical edge of the left stripe is slightly bilobed, whilst the right stripe is obliquely truncated. Parameres are also asymmetrical; the left paramere is directed somewhat downward at the base and continues downwards at the end of segment 10, then it is curved dorsally and becomes two-branched; the right branch is strongly curved up and then forwards over segment 10; the left one is directed dorsad. Both have subdistally honeycombed parts which are pointed at the tips. The right paramere is as long as the right lateral prolongation of segment 9 and almost parallel to segment 10 and acute at the tip. Basal part of the inferior appendages has acute projections on the sides when viewed ventrally. In lateral aspect the second half of the inferior appendages are very narrow at the base, then gradually broader forming a triangle. The aedeagus is long and thin. The female is unknown.

Holotype ♂ and paratypes 2♂♂: Turkey, Antalya, Gündoğmuş, Güneycik Köyü, Alara çayı, Alibey köprüsü, 31°48'E, 36°46'N, 180m, 11.8.1993 (at light), leg. & coll. Sipahiler.

Hydroptila alara sp.n. belongs to the *occulta* group and is well characterized by the asymmetrical parts of the genitalia, especially the lateral prolongations of segment 9, asymmetrical apical edge of segment 10 and the parameres. In the *occulta* group there are three Levantine species which also have asymmetrical genitalia: *H. palaestinae* Botosaneanu & Gasith 1971, *H. libanica* Botosaneanu & Dia 1983 and *H. fonsorentina* Botosaneanu & Moubayed (in Moubayed & Botosaneanu 1985). All these species and *H. alara* sp.n. have asymmetrical parameres in the same manner; namely, the left paramere is longer than the right one and bifurcated. *H. alara* sp.n. differs from these related species by the following features: all the related species have short posterior projections on the lateral part of segment 9 and symmetrical segment 10. *H. alara* sp.n. has very long asymmetrical lateral prolongations and also an asymmetric segment 10. In addition to these differences the left branch of the left paramere is strongly curved in *H. alara* sp.n.

***Tinodes oyae* sp.n. (Psychomyiidae)**

Head, thorax, antennae and legs brown; wings grey; length of the anterior wings of male 5mm, of female 5,5 mm. - Male genitalia (Figs. 6-9): In lateral aspect ventral part of segment 9 rounded on the anterior edge; ventrally, the anterior part becomes thinner in the middle. Pre-anal appendages are thin at the base, dilated in the middle and gradually narrowed towards the apex. Inner basal appendages of inferior appendages composed of a long dorsal projection, which is curved subdistally and acute at the tip, and a ventral part which possesses two projections on the posterior edge; the upper projection is long and as thick as the dorsal projection, the ventral projection is small and pointed at the tip. Coxopodite of the inferior appendage is very broad at the base, then gradually tapering, its apical part is long and narrow, in lateral view curved downwards; harpago laterally dilated at the apical margin, which is deeply excised in the middle forming an acute projection on the ventral side; dorsal part of this excision is also excised subdorsally and forms two pointed projections. There are also two small projections between dorsal and ventral projections. Seen ventrally, the edge



of the inner part of the harpago protrudes as a small and pointed projection on the inner side and a big projection on the outer side; the outer side of the harpago has three small and one large projections. Parameres have many spines; there is one pair of long spines at the base, which are directed dorsad and two pairs of long spines, which are located on the sides of basal parts and directed on the sides.

Holotype ♂ and allotype ♀: Turkey, Antalya, Manavgat, Beşkonak, Köprülü Kanyon, Köprüçay, 31°10'E, 37°09'N, 26.3.1993, leg. & coll. Sipahiler.

Tinodes oyae sp.n. belongs to the *pallidulus* group and is somewhat related to *T. popovi* Kumanski (Kumanski & Malicky 1975). *T. oyae* sp.n. differs from *T. popovi* and the related species in the *pallidulus* group by the shape of the inferior appendages, especially the inner basal appendages, which has a long and thick dorsal projection on the posterior edge of its basal part.

This new species is dedicated to Mrs. Dr. Oya Aşkın.

***Athripsodes antalya* sp.n. (Leptoceridae)**

Head, maxillary palpus and thorax brown; antennae yellow with brown annulations on the apical parts; wings pale brown; length of the anterior wing of male and female 7,5 mm. - Male genitalia (Figs. 10-13): In lateral view, segment 9 broad on the ventral half and narrow dorsally; the anterior edge slightly dilated on the dorsolateral part; the posterior edge is broadly excised on the ventrolateral part forming two rounded lobes. Ventrally the median part of segment 9 protrudes as a large and rounded lobe in the middle. Dorsal lobes of segment 9 are as long as segment 10; seen dorsally, they are

separated in the middle, broad at the base and gradually narrowed towards the tip; inner and lateral margins are smooth. Pre-anal appendages are long, straight and rounded at the tips. Segment 10, in dorsal view, is short and rounded; the apical margin is slightly excised in the middle. Segment 10 has two pairs of prolongations; in dorsal aspect, the outer prolongations are thin and very long; the inner pair is short and does not reach to the half of the outer pair. Intermediate appendages are as long as the pre-anal appendages, strongly directed inwards on the second half and acute at the apex if viewed dorsally. Basal part of the inferior appendages is long and broad; in lateral view, dorsal edge with a thin prolongation, which is slightly shorter than the length of the basal part; the ventral edge is elongated on the apical edge forming a large sharp projection, which is strongly sclerotized and directed ventrally. In ventral view, the dorsal

margin of this projection is slightly concave and directed inwards and upwards. The second segment of the inferior appendages is shorter than the basal segment; ventrally they are rounded at the base and gradually curved towards the tips. The aedeagus is strongly bent in the middle; in lateral view, its apex is pointed and curved posteriorly. - Female genitalia (Figs. 14-16): Ventrolateral part of segment 9 is broadly dilated on the anterior margin. Dorsolateral lobes of segment 9 broad and rounded if viewed laterally. In dorsal aspect, they are directed somewhat sideways. Lateral lobes of segment 10 are rounded.

Holotype ♂, allotype ♀ and paratype 1♀: Turkey, Antalya, Gündoğmuş, Güneycik Köyü, Alara çayı, Alibey köprüsü, 31°48'E, 36°46'N, 180m, 11.8.1993 (at light), leg. & coll. Sipahiler.

Athripsodes antalya sp.n. is closely related to *A. sewangensis* Martynov 1925 (Malicky 1983) from Caucasus and eastern Anatolia. The differences in male genitalia are seen especially in the shape of segment 9, the length of the prolongations of the segment 10, pre-anal and inferior appendages. The differences in the female genitalia are also evident (Sipahiler & Malicky 1987).

REFERENCES

- Botosaneanu, L., Gasith, A., 1971, Contributions taxonomiques et écologiques à la connaissance des Trichoptères (Insecta) d'Israel. - Israel J. Zool. 20:89-129.
- Dia, A., Botosaneanu, L., 1983, Six espèces nouvelles de Trichoptères du Liban. - Bull. zool. Mus. Amsterdam 9(14):125-135.
- Kumanski, K., Malicky, H., 1975, Sieben neue Tinodes-Arten aus dem Ägäisraum (Trichoptera, Psychomyidae). - Ent. Z. (Stuttgart) 85:25-33.
- Malicky, H., 1983, Atlas of European Trichoptera. Ser. Ent. 24: Junk, The Hague, X+298 pp.
- Moubayed, Z., Botosaneanu, L., 1985, Recherches sur les Trichoptères du Liban et principalement des bassins supérieurs de l'Oronte et du Litani. - Bull. zool. Mus. Amsterdam 10(11):61-76.
- Sipahiler, F., Malicky, H., 1987, Die Köcherfliegen der Türkei (Trichoptera). - Entomofauna (Linz) 8:77-167.

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BOOK REVIEW

Checklist of Romanian Trichoptera, by Constantin Ciubuc. - Trav. Mus. Hist. nat. Grigore Antipa 33:11-147, Bucureşti 1993.

This is the long-awaited summary of the caddisflies of Romania, a country where these insects have been well investigated over the last decades. After a short general introduction on research activities, ecology and geography, the species are listed with information on their distribution in Romania, together with zoogeographic and taxonomical comments. Doubtful literature records are pointed out. At the end of the text, a survey of the percentages of families found in the regions of the country is presented, and a synoptic table contains the distribution of the species within Romania and adjacent regions.

The work is helpful for all those studying caddis distribution in Europe, especially for those drawing distribution maps and looking for scattered literature records and enigmatic localities on maps. The author lists 267 species which is a good average for European countries.

I have a few comments. *Rhyacophila valkanovi* is in my opinion a synonym of *R. torrentium*. *Wormaldia triangulifera* is not restricted to SW Europe and is also recorded from the eastern Mediterranean area, but *Wormaldia* species in Europe should be revised to find out the correct relations of the many described species and subspecies. *Drusus annulatus*, *Anabolia nervosa*, *Melampophylax mucoreus* and *Stenophylax vibex* are certainly not members of the Romanian fauna. The presence of *Athripsodes leucophaeus* and *Ylodes conspersus* should be confirmed by recent material. *Sericostoma "schneideri"* is an arbitrary selected name from a number of names which must urgently be revised; normally this species is called *flavicorne* in the recent literature. Ma.



BOOK REVIEW

Zur Larvaltaxonomie, Faunistik und Ökologie mitteleuropäischer Fließwasser-Köcherfliegen, by Thomas Pitsch. Technische Universität Berlin, Schriftenreihe des Fachbereichs Landschaftsentwicklung, Sonderheft S 8, 316 pages, 1993.

This thesis by Thomas Pitsch makes an important step forward towards a better knowledge of caddis larvae. The introductory chapters (on material and methods, nomenclature, morphology, identification of larvae, description and keying techniques, coding for and use of the databank, faunistics, autecology, phenology) are detailed and include useful information and discussions of technical problems which are normally avoided in recent publications (because they are usually rejected by editors and reviewers to save space: a procedure which contributes to the sterility of the bulk of modern publications). To mention only two of the problems: how many workers think of the sense of dichotomic keys which are stereotypically used throughout the literature, and are in fact mostly useless; what author finds it worthwhile to add a comment on the unreliable characters of limnephilid cases?

The main part of the paper, which is based on the results of the author's field research during many years, gives descriptions of larvae of certain groups, with discussions and excellent drawings and photographs. The distribution of many species in relation to altitude and river zonation is shown in diagrams. There are 172 distribution maps of species, which are informative as they show the different levels of information by different characters, although they are for this reason a bit confusing. The work covers the following groups in detail: Rhyacophilidae, Glossosomatidae, Philopotamidae, Hydropsychidae, Polycentropodidae, Apataniinae and Drusinae. For other groups, summaries from the literature and his own results are given.

For every serious worker on caddis larvae this book is a must. It is not a handbook in which definitive solutions of all problems may be found (which may often be erroneous, as many examples show), but a kind of notebook with trustworthy details, corrections of earlier opinions and important discussions. It may be called a snapshot of present research on caddis larvae which cannot be neglected by anyone working on these creatures. And it may, perhaps, encourage some workers to learn German. Ma.

The book costs DM 48.- and may be ordered from:
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